



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0268; Directorate Identifier 2011-NM-129-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. This proposed AD was prompted by reports of incorrectly installed bolts common to the rear spar termination fitting on the horizontal stabilizer. This proposed AD would require inspecting for a serial number that starts with the letters “SAIC” on the left- and right-side horizontal stabilizer identification plate; a detailed inspection for correct bolt protrusion and chamfer of the termination fitting bolts of the horizontal stabilizer rear spar, if necessary; inspecting to determine if certain bolts are installed, if necessary, and related investigative and corrective actions if necessary. This proposed AD would also require repetitive inspections for cracking of the termination fitting at certain bolt locations, and repair if necessary. We are proposing this AD to prevent loss of structural integrity of the horizontal stabilizer attachment and loss of control of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6440; fax: 425-917-6590; e-mail: nancy.marsh@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0268; Directorate Identifier 2011-NM-129-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received reports of incorrectly installed bolts common to the rear spar terminal fitting of the horizontal stabilizer. During manufacturing, the termination fitting bolts were installed without proper thread protrusion due to missing washers. This resulted in an unclamped condition between the horizontal stabilizer rear spar and the termination fitting. Loose bolts attaching the horizontal stabilizer termination fitting can lead to premature cracking of the fitting. This condition, if not corrected, could result in the loss of structural integrity of the horizontal stabilizer attachment and loss of control of the airplane.

Relevant Service Information

We reviewed Boeing Service Bulletin 737-55-1090, dated March 30, 2011. This service information describes procedures for inspecting for a serial number that starts with the letters “SAIC” on the left- and right-side horizontal stabilizer identification plate; a detailed inspection for correct bolt protrusion and chamfer of the termination fitting fasteners of the horizontal stabilizer rear spar, if necessary; an inspection to determine if certain bolts are installed, if necessary, and related investigative and corrective actions if necessary. This service information also describes procedures for repetitive high frequency eddy current (HFEC) and ultrasonic (UT) inspections for cracking of the termination fitting at certain bolt locations, and repair if necessary.

The related investigative action is a detailed inspection for damage (including chafing, galling, nicks, gouges, and exposed bare metal) of the bolt shank. The corrective action includes installing new hardware, replacing the bolt with a new bolt, and contacting The Boeing Company for repair instructions and doing the repair.

The initial compliance time for certain airplanes is before 32,000 total flight cycles or within 12 months after the original issue date of the service information. For certain other airplanes, the initial compliance time is before 36,000 total flight cycles or within 12 months after the original issue date of the service information.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between the Proposed AD and the Service Information.”

Differences Between the Proposed AD and the Service Information

Boeing Service Bulletin 737-55-1090, dated March 30, 2011, does not specify doing an inspection for bolt type. This proposed AD would require inspection for correct bolt type. If incorrect bolt type is found, paragraph (k) of this proposed AD would require repair using a method approved in accordance with paragraph (l).

Figure 1 of Boeing Service Bulletin 737-55-1090, dated March 30, 2011, contains an error. The illustration of an identification plate that points to the location of a part number should point to the serial number and the example “SAIC 1234” should be located on the serial number line. This proposed AD requires an inspection for an identification plate with a serial number that starts with the letters “SAIC.”

Boeing Service Bulletin 737-55-1090, dated March 30, 2011, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 373 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	1 work-hour X \$85 per hour = \$85 per inspection cycle	\$0	\$85	\$31,705
Replacement of bolts	17 work-hours X \$85 per hour = \$1,445	\$1,530	\$2,975	\$1,109,675

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions (contacting Boeing and repairing cracks or damage) specified in this AD.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2012-0268; Directorate Identifier 2011-NM-129-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes, certificated in any category, as identified in Boeing Service Bulletin 737-55-1090, dated March 30, 2011.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 55: Stabilizer.

(e) Unsafe Condition

This AD was prompted by reports of incorrectly installed bolts common to the rear spar termination fitting of the horizontal stabilizer. We are issuing this AD to prevent loss of structural integrity of the horizontal stabilizer attachment and loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspecting the Horizontal Stabilizer and Corrective Actions

Except as provided by paragraph (i) of this AD, at the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Service Bulletin 737-55-1090, dated March 30, 2011: Do an inspection for a serial number that starts with the letters “SAIC” on the identification plates of the left- and right-side horizontal stabilizers, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-55-1090, dated March 30, 2011.

(1) If a serial number starting with the letters “SAIC” is found on a horizontal stabilizer identification plate: Except as provided by paragraph (i) of this AD, at the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Service Bulletin 737-55-1090, dated March 30, 2011, do a detailed inspection for correct bolt protrusion and correct chamfer of the termination fitting bolts of the horizontal stabilizer rear spar, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-55-1090, dated March 30, 2011. Concurrently with the detailed inspection, inspect to determine if bolts other than part number (P/N) BACB30US14K() or BACB30US16K(), as applicable, are installed. Before further flight, do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-55-1090, dated March 30, 2011.

(2) If no SAIC serial number is found, no further action is required by this AD.

(h) High Frequency Eddy Current and Ultrasonic Inspections of Termination Fitting and Repair

For any location where a new bolt having a P/N BACB30US14K() is installed due to damage found during any inspection required by paragraph (g) of this AD: Except as provided by paragraph (i) of this AD, at the times specified in paragraph 1.E., “Compliance,” of Boeing Service Bulletin 737-55-1090, dated March 30, 2011, do HFEC and ultrasonic inspections for cracking of the forward and aft sides of the termination fitting, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-55-1090, dated March 30, 2011. If any crack is found in any termination fitting: Before further flight, repair in accordance with the procedures specified in paragraph (l) of this AD. Repeat the HFEC and ultrasonic inspections thereafter at intervals not to exceed 3,500 flight cycles.

(i) Exception to Compliance Time

Where Boeing Service Bulletin 737-55-1090, dated March 30, 2011, specifies a compliance time “after the original issue date on the service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(j) Exception to Service Bulletin

Where Figure 1 of Boeing Service Bulletin 737-55-1090, dated March 30, 2011, points to the location of a part number rather than the serial number, this AD requires an inspection for an identification plate with a serial number that starts with the letters “SAIC.”

(k) Exceptions to Corrective Actions

If, during any inspection required by paragraphs (g) and (h) of this AD, any bolts other than P/N BACB30US14K() or BACB30US16K(), as applicable, are found: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(m) Related Information

(1) For more information about this AD, contact Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6440; fax: 425-917-6590; e-mail: nancy.marsh@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on March 8, 2012.

Ali Bahrami,
Manager,

Transport Airplane Directorate,
Aircraft Certification Service.

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